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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/786,158

Filing Date: February 26, 2004

Appelant(s): BEAN ET AL.

Attorney Kagen
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/3/09 appealing from the Office action mailed 8/4/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

941,833	Miller (Great Britain)	11-1963
2003/0173151	Bodtke et al.	9-2003
4,456,093	Finley et al.	6-1984
2004/0200644	Paine et al.	10-2004

JLG Inc.'s 1350SJP dual capacity "control" system, Appellant's Admitted Prior Art as stated in the BACKGROUND OF THE INVENTION.

JLG Inc.: "Ultra Series Articulating and Telescopic Boom Lifts",
URL:<http://www.jlg.com/Products/PDF/Ultra.Series.pdf>, retrieved 4/26/2005, 8 pages, see page 7.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,5-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appellant's Admitted Prior Art (AAPA) JLG Inc. 1350SJP (herein after referred to as JLG) in view of British pat. 941,833 (herein after referred to as Pat. '833). AAPA JLG shows the claimed lift having a control system communicating with his capacity mode selector switch and its measuring sensors to determine the position of his boom within the envelope (note pg. 2 of the BACKGROUND OF THE INVENTION), but silent on the location of such sensors, thus the claimed difference being the plurality of sensors positioned on his boom which cooperatively define position zones of his platform.

Pat. '833 shows a plurality of sensors, including limit switches LS-1, LS2, and extension and retraction control switches H1 –H4, positioned on his boom for sending output to a control system and cooperatively defining position zones of his platform 41. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify AAPA JLG to comprise sensors positioned on his boom, as taught by Pat. '883, to enable his control system in determining which position zones his platform is located. To configure the control system to prevent lift/lower function and telescope function at the claimed angle, as set forth in claim 3, and to provide conventional sensors to determine four length regions of the boom, as set forth in claims 6 and 7, and to comprise conventional multi-

capacity and transport sensors, as set forth in claim 9, would have been an obvious mechanical expediency.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA JGL and Pat. '833, as applied to claim 1 above, and further in view of Bodtke. Bodtke shows a lift having a tower and main boom. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lift of AAPA JGL to comprise a tower boom, as taught by Bodtke, to enhance the positioning of his platform.

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA JGL and Pat. '833, as applied to claim 1 above, and further in view of Finley. Finley shows an alarm. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lift of AAPA JGL to comprise an alarm, as taught by Finley, to alert users to unsafe positioning of his platform and enhance safety.

Claims 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA JGL and Pat. '833, as applied to claim 1 above, and further in view of Paine et al. Paine shows an inclinometer 60 for determining a boom angle relative to gravity. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the lift of AAPA JGL to comprise an

inclinometer, as taught by Paine, to sense the angle of his boom relative to gravity. To configure the control system to prevent lift/lower function and telescope function as at the claimed angle, as set forth in claim 3, and to provide conventional sensors to determine four length regions of the boom, as set forth in claims 6 and 7, would have been an obvious mechanical expediency and ensure safe operation of the boom and ensure stability.

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(10) Response to Argument

With respect to claim 1, Appellant argues that both JLG and BP'833 lack the claimed plurality of sensors strategically positioned on the main boom that cooperatively define position zones of the platform. The examiner notes that BP '833, as stated above teaches the positioning of sensors, H-1-H-4, and limit switches LS1 and LS2 (the sensors disclosed as being used by Appellant, because of cost in lieu of the sensors used by AAPA JLG in determine the position zones of the platform), on his boom which defines the position of his platform. Appellant further argues that BP '833 zones are defined by a complex arrangements of cams, input switches and limit switches. It is noted that the sensors on his boom are a part

of those arrangement and thus cooperatively defines his quadrants. Appellant further argues that BP '833 does not have a controller. It is noted that without a controller BP '833 would not be able to move and restrict positioning of his platform, and it is further noted that JLG teaches a controller system in communication with a selector switch and sensors in determining the positioning of his platform. Further Details on the JGL 1350SJP were provided in JLG Inc's brochure "Ultra Series Articulating and Telescopic Boom Lifts", further documenting the control system and dual -mode zone system as admitted by applicant and used to further document the admitted features.

■ Unmatched Range of Motion and Reach

With their exclusive controlled arc, the Models 1200SJP and 1350SJP telescopic boom lifts automatically maintain a smooth arc at the edges of the work envelope. The JibPLUS boom feature allows the operator to use the platform to literally reach around corners.* And, with the Capacity Control system, operators can automatically limit the work envelope to a pre-selected zone.*

**Capacity is restricted to 500 lb (227kg) when jib is in side-swing mode.*

With respect to claim 5, the safe zones of operations are dependent on the angles of his boom with respect to the horizontal (gravity) and the extended or retracted length of his boom.

With respect to claim 8, BP. '883 states that sensors LS-1 And LS-2 are limit switches.

With respect to claim 11, the dual "capacity" control system of AAPA JGL in which the envelope was automatically limited would be according to a sensed load on the platform. Furthermore, Appellant had not disclosed any detail of his claimed dual capacity control system, thus the examiner assumes that it is the same dual "capacity" control system disclosed by Appellant as prior art and owned by the same assignee and also with the use of known load sensing sensors. Note that JGL1350SJP is described as having a dual capacity – 500 lbs unrestricted and 1000 lbs restricted on page 6 of JLG Inc's brochure Ultra Series Articulating and Telescopic Boom Lifts"

	Model 1200SJP	Model 1250AJP	Model 1350SJP
Reach Specifications			
Platform Height	120 ft (36.58 m)	125 ft (38.1 m)	135 ft (41.15 m)
Horizontal Reach	75 ft (22.86 m)	63 ft 2 in. (19.25 m)	80 ft (24.38 m)
Up and Over Height	-	60 ft 6 in. (18.44 m)	-
Swing	360° Continuous	360° Continuous	360° Continuous
→ Platform Capacity- Restricted	1,000 lb (454 kg)	1,000 lb (454 kg)	1,000 lb (454 kg)
→ Platform Capacity- Unrestricted	500 lb (227 kg)	500 lb (227 kg)	500 lb (227 kg)
Platform Rotator	180°	180°	180°

With respect to claim 5, and the combination with the teaching of Paine, Paine merely was used to teach that inclinometer for determine boom angles relative to gravity is conventional.

With respect to the combination, all the claimed elements were known in the prior art as evidenced above, and one of ordinary skill in the art could have combined the elements as claimed, or substituted one known element for another, using known

methods with no change in their respective functions. Such a combination would have yielded predictable results to one of ordinary skill in the art at the time the invention was made, since the elements perform as expected and thus the results would be predictable, thus the modification of JLG in view of the teachings of BP '883 is deemed proper and warranted.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Alvin C. Chin-Shue/

Primary Examiner, Art Unit 3634

Conferees:

Katherine Mitchell /KWM/

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